



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,516	11/14/2001	David P. Goren	1061B	7465
23704	7590	01/25/2005	EXAMINER	
SYMBOL TECHNOLOGIES INC LEGAL DEPARTMENT ONE SYMBOL PLAZA HOLTSVILLE, NY 11742			PEREZ GUTIERREZ, RAFAEL	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/926,516	Goren et al.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rafael Perez-Gutierrez	2686	

**- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 29 September 2004.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1,2,5-7,11-16,18-20 and 24 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1,2,5-7,11-16,18-20 and 24 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

Art Unit: 2686

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 29, 2004 has been entered. **Claims 1, 2, 5-7, 11-16, 18-20, and 24** are still pending in the present application.

### ***Claim Objections***

2. **Claims 1, 7, 11, 15, and 24** are objected to because of the following informalities:

- a) On line 9 of claim 1, on line 10 of claim 11, on line 12 of claim 15, and on line 13 of claim 24, insert --,-- after "threshold";
- b) On line 1 of claim 7, replace "7.." with --7.--;
- c) On line 8 of claim 11, replace "channel:" with --channel;-- after "first"; and
- d) On lines 8, 11, and 14 of claim 15 and on line 12 of claim 24, insert --,-- after "receiver".

Appropriate correction is required.

Art Unit: 2686

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1, 2, and 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Greenspun et al. (U.S. Patent # 5,150,310)** in view of **Jandrell (U.S. Patent # 6,459,704 B1)**,

Art Unit: 2686

both as applied in the previous Office Action.

Consider **claims 1 and 5**, Greenspun et al. clearly show and disclose a method for providing position detection information (location identification signals), said position (location) information corresponding to a movable object (mobile asset) in a communication network (abstract, figure 1A, column 1 lines 7-12, column 4 line 66 - column 5 line 15, and column 7 lines 33-44), said method comprising:

waiting a predetermined period of time (inherent in the teaching of deferring transmission for a selected period of time in response to the channel being in use) (figure 3B, column 5 line 62 - column 6 line 2, and column 10 lines 58-60);

detecting radio frequency energy on a shared communication (first) channel 11 (energy detector; inherent in the teaching of detecting whether a channel is in use or occupied) (figures 1A and 3B, column 5 line 62 - column 6 line 2, column 7 lines 33-44, and column 10 lines 40-65); and

if the channel 11 is quiet (when the radio frequency energy is substantially less than a predetermined threshold), transmitting, via transmitters 12 (means for transmitting), said position (location) information on said channel 11 (abstract, figures 1A, 1B, and 3B, column 4 line 65 - column 6 line 2, column 6 lines 55-63, column 7 lines 11-23, and column 10 line 40 - column 11 line 7).

However, Greenspun et al. do not specifically disclose that if the radio frequency energy on the channel 11 is not substantially less than said threshold, detecting the presence of radio frequency energy on a second channel and if radio frequency energy on said second channel is

Art Unit: 2686

substantially less than a predetermined threshold, transmitting said position detection information (location identification signals) on said second channel.

Jandrell clearly shows and discloses a method for radio location determination in which if a first frequency channel is busy (i.e., RF energy in said channel is not substantially less than a threshold) (figure 8 step 504), detecting the presence of RF energy in a second frequency channel (i.e., whether the channel is busy or quiet) (column 11 lines 36-49) and if the second frequency channel is quiet (i.e., RF energy on said second channel is substantially less than a threshold), transmitting a message (location identification signals) on said second frequency channel (figure 8 steps 504 and 512 and column 11 lines 36-57).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the steps of detecting the energy of a second channel and transmitting the location identification signals in said second channel if the energy is below the threshold as taught by Jandrell into the method taught by Greenspun et al. for the purpose of allowing a greater number of assets to be tracked by using more than one channel (i.e., due to less interference (Jandrell; column 11 lines 31-35)).

Consider **claim 2**, and as applied to **claim 1 above**, Greenspun et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Greenspun et al. further disclose, among other embodiments, that the communication network is an Ethernet network using an RF (wireless) communication channel 11 transmitting a packet (column 7 lines 33-44, column 10 lines 30-39, column 11 lines 5-7). Nonetheless, Greenspun et al. do not disclose that the packet is an 802.11 data packet.

Art Unit: 2686

However, the Examiner takes Official Notice that it is well known in the art to recognize an RF or wireless Ethernet communication network as a network that uses the IEEE 802.11 standard, therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the combined teachings of Greenspun et al. and Jandrell in order to specifically use the 802.11 standard in the wireless Ethernet communication network.

Consider **claim 6**, and as applied to claim 1 above, Greenspun et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Greenspun et al. also disclose that the transmitters 12 (figure 1A) are configured to transmit a signal that includes a tag portion that uniquely identifies the transmitter (asset identification information) (column 7 lines 51-54).

Consider **claim 7**, and as applied to claim 1 above, Greenspun et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Greenspun et al. further disclose that the transmitters 12 (figure 1A) are configured to transmit a signal (information sequence) selected for time-of-arrival estimation (column 8 lines 28-54).

5. **Claims 11-16, 18-20, and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Belcher et al. (U.S. Patent # 6,121,926)** in view of **Jandrell (U.S. Patent # 6,459,704 B1)**, both as applied in the previous Office Action.

Consider **claims 11, 15, 18, and 24**, Belcher et al. clearly show and disclose a mobile unit (e.g., tag) and a method for providing location identification signals, said location signals

Art Unit: 2686

corresponding to a location of a mobile asset 14 (figure 1) in a communication network (column 2 line 33 - column 3 line 7), said unit and respective method comprising:

a receiver (figure 3) for receiving a query transmission (wake-up signal) from an interrogation wand 30 (network transmitter) (column 5 lines 30-40);  
a controller (not shown) for delaying a predetermined period of time (column 3 lines 38-52); and  
a transmitter 40 (figure 3) for transmitting said location identification signals (abstract, figures 1 and 4, column 5 lines 40-46 and column 9 lines 33-53).

However, Belcher et al. do not specifically disclose detecting the presence of RF energy on a first channel in response to said query, where if said RF energy is substantially less than a predetermined threshold, transmitting said location identification signals on said first channel, if the RF energy on said first channel 11 is not substantially less than said threshold, detecting the presence of RF energy on a second channel and if RF energy on said second channel is substantially less than a predetermined threshold, transmitting said location identification signals on said second channel.

Jandrell clearly shows and discloses a method for radio location determination in which a first frequency channel is monitored, by means of an energy detector, for RF energy, where if the first frequency channel is quiet (i.e., RF energy in said channel is substantially less than a threshold), transmitting a message (location identification signals) on said first frequency channel (figure 8), where if the first frequency channel is busy (i.e., RF energy in said channel is not substantially less than a threshold) (figure 8 step 504), detecting the presence of RF energy in

Art Unit: 2686

a second frequency channel (i.e., whether the channel is busy or quiet) (column 11 lines 36-49) and if the second frequency channel is quiet (i.e., RF energy on said second channel is substantially less than a threshold), transmitting said message (location identification signals) on said second frequency channel (figure 8 steps 504 and 512 and column 11 lines 36-57).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the steps of detecting the energy of the first and second channels and transmitting the location identification signals in said second channel if the energy is below the threshold as taught by Jandrell into the method taught by Belcher et al. for the purpose of allowing a greater number of assets to be tracked by using more than one channel (i.e., due to less interference (Jandrell; column 11 lines 31-35)).

Consider **claims 12 and 16, and as applied to claims 11 and 15 above**, although Belcher et al., as modified by Jandrell, fail to disclose the use of a 802.11 packet to transmit the location identification signals, the Examiner takes Official Notice that it is well known in the art to use 802.11 packet as the means for transmitting information in environments such as the one taught by Belcher et al., therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the combined teachings of Belcher et al. and Jandrell in order to specifically use the 802.11 standard in the monitored environment 12 of Belcher et al. (figure 1).

Consider **claims 13 and 19, and as applied to claims 11 and 15 above**, Belcher et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Belcher et al. further disclose that said transmitting comprises transmitting tag identification code (asset

Art Unit: 2686

identification information) (column 5 lines 40-46).

Consider claims 14 and 20, and as applied to claims 11 and 15 above, Belcher et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Belcher et al. also disclose that said transmitting comprises transmitting a pulse (information sequence) selected for time-of-arrival estimation (abstract).

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 11, 15, and 24 have been considered but are moot in view of the new ground(s) of rejection.

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In the present application, both references are in the same field of endeavor and the motivation for combining was clearly stated by Examiner I the above rejection from the teachings of Jandrell.

Additionally, Applicant also argues, on page 9 of the remarks, that there is no motivation to combine in Greenspun et al..

Art Unit: 2686

The Examiner respectfully disagrees with Applicant's argument because, first, the motivation to combine, as explained above, comes from the teachings of Jandrell and, second, an express written motivation to combine is not required to appear in the prior art references. See *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 69 USPQ2d 1686 (Fed. Cir. 2004), where the court rejected the notion that "an express written motivation to combine must appear in prior art references...." *Id.* at 1276, 69 USPQ2d at 1690.

In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the present application, Applicant arguments are based on the each reference being considered individually while the rejection is based on both references, and therefore, needs to be considered as whole.

Therefore, in view of the above reasons, the previous rejection is maintained by the Examiner.

### ***Conclusion***

7. Any response to this Office Action should be **faxed to (703) 872-9306 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Art Unit: 2686

**Hand-delivered responses** should be brought to

220 S. 20<sup>th</sup> St.  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington, VA 22202

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-0377.

  
Rafael Perez-Gutierrez  
R.P.G./rpg   **RAFAEL PEREZ-GUTIERREZ**  
                  PATENT EXAMINER

January 24, 2005